## **SIEMENS**

Data sheet 3RB2143-4ED0



Overload relay 25...100 A For motor protection Size S3, Class 5...30 Contactor mounting Main circuit: Screw terminal Auxiliary circuit: Spring-type terminal Manual-Automatic-Reset Internal ground fault detection !!! Phased-out product !!! Successor is SIRIUS 3RB3 Preferred successor type is >>3RB3143-4XD0<<

| product brand name   | SIRIUS                        |
|--|-------------------------------|
| product designation  | solid-state overload relay    |
| General technical data   |                               |
| size of contactor can be combined company-specific                                     | S3                            |
| power loss [W] for rated value of the current at AC in hot operating state             | 0.05 W                        |
| • per pole   | 0.02 W                        |
| insulation voltage with degree of pollution 3 at AC rated value                        | 1 000 V                       |
| surge voltage resistance rated value   | 8 kV                          |
| shock resistance   | 15g / 11 ms                   |
| type of protection   | PTB 06 ATEX 3001 Ex II (2) GD |
| reference code according to IEC 81346-2  | F                             |
| Substance Prohibitance (Date)  | 07/01/2006                    |
| Ambient conditions   |                               |
| installation altitude at height above sea level maximum                                | 2 000 m                       |
| ambient temperature  |                               |
| <ul><li>during operation</li></ul>   | -25 +60 °C                    |
| during storage   | -40 +80 °C                    |
| <ul> <li>during transport</li> </ul>   | -40 +80 °C                    |
| relative humidity during operation   | 100 %                         |
| Main circuit   |                               |
| number of poles for main current circuit   | 3                             |
| adjustable current response value current of the<br>current-dependent overload release | 25 100 A                      |
| Auxiliary circuit  |                               |
| number of NC contacts for auxiliary contacts   | 1                             |
| number of NO contacts for auxiliary contacts   | 1                             |
| number of CO contacts for auxiliary contacts   | 0                             |
| operational current of auxiliary contacts at AC-15                                     |                               |
| • at 24 V  | 4 A                           |
| • at 110 V   | 4 A                           |
| • at 120 V   | 4 A                           |
| ● at 125 V   | 4 A                           |
| • at 230 V   | 3 A                           |
| operational current of auxiliary contacts at DC-13                                     |                               |
| • at 24 V  | 2 A                           |
| ● at 60 V  | 0.55 A                        |
| ● at 110 V   | 0.3 A                         |
| • at 125 V   | 0.3 A                         |
| • at 220 V   | 0.11 A                        |

| Protective and monitoring functions   |   |
|---|---|
| trip class  | CLASS 5E, 10E, 20E and 30E adjustable                                       |
| Short-circuit protection  |   |
| design of the fuse link   |   |
| <ul> <li>for short-circuit protection of the auxiliary switch</li> </ul>            | fuse gL/gG: 6 A   |
| required  |   |
| Installation/ mounting/ dimensions  |   |
| mounting position   | any   |
| fastening method  | Contactor mounting  |
| height  | 106 mm  |
| width   | 70 mm   |
| depth   | 124 mm  |
| required spacing  |   |
| with side-by-side mounting  | 0   |
| — forwards  | 0 mm  |
| — backwards   | 0 mm<br>0 mm  |
| — upwards<br>— downwards  | 0 mm  |
| — at the side   | 0 mm  |
| for grounded parts  | V IIIII   |
| — forwards  | 0 mm  |
| — backwards   | 0 mm  |
| — upwards   | 0 mm  |
| — at the side   | 6 mm  |
| — downwards   | 0 mm  |
| for live parts  |   |
| — forwards  | 0 mm  |
| — backwards   | 0 mm  |
| — upwards   | 0 mm  |
| — downwards   | 0 mm  |
| — at the side   | 6 mm  |
| Connections/ Terminals  |   |
| product component removable terminal for auxiliary                                  | Yes   |
| and control circuit   |   |
| type of electrical connection   |   |
| for main current circuit  | screw-type terminals  |
| for auxiliary and control circuit   | spring-loaded terminals   |
| type of connectable conductor cross-sections for main contacts                      |   |
| • solid   | 2x (2.5 16 mm²)   |
| stranded  | 2x (10 50 mm²), 10 70 mm²   |
| finely stranded with core end processing  | 2x (2.5 35 mm²), 2.5 50 mm²   |
| type of connectable conductor cross-sections  | _x (_io oo  |
| for auxiliary contacts  |   |
| — solid   | 2x (0.25 1.5 mm²)   |
| finely stranded with core end processing  | 2x (0.25 1.5 mm²)   |
| at AWG cables for auxiliary contacts  | 2x (24 16)  |
| Electromagnetic compatibility   | •   |
| conducted interference  |   |
| due to burst according to IEC 61000-4-4   | 2 kV (power ports), 1 kV (signal ports) corresponds to degree of severity 3 |
| <ul> <li>due to conductor-earth surge according to IEC<br/>61000-4-5</li> </ul>     | 2 kV (line to earth) corresponds to degree of severity 3                    |
| <ul> <li>due to conductor-conductor surge according to IEC<br/>61000-4-5</li> </ul> | 1 kV (line to line) corresponds to degree of severity 3                     |
| field-based interference according to IEC 61000-4-3                                 | 10 V/m  |
| electrostatic discharge according to IEC 61000-4-2                                  | 6 kV contact discharge / 8 kV air discharge                                 |
| Certificates/ approvals   |   |
| General Product Approval  | EMC   |





Confirmation







For use in hazardous locations

**Declaration of Conformity** 

**Test Certificates** 

Marine / Shipping







Type Test Certificates/Test Report

Special Test Certificate



Marine / Shipping



**Miscellaneous** 

other

Confirmation

## Further information

Information on the packaging

https://support.industry.siemens.com/cs/ww/en/view/109813875

Information- and Downloadcenter (Catalogs, Brochures,...)

https://www.siemens.com/ic10

Industry Mall (Online ordering system)

https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3RB2143-4ED0

Cax online generator

http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3RB2143-4ED0

Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

https://support.industry.siemens.com/cs/ww/en/ps/3RB2143-4ED0

Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, EPLAN macros, ...)

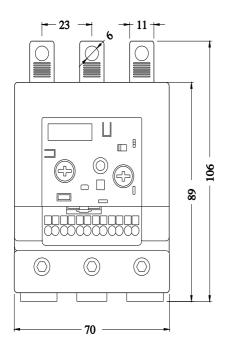
 $\underline{\text{http://www.automation.siemens.com/bilddb/cax\_de.aspx?mlfb=3RB2143-4ED0\&lang=en}}$ 

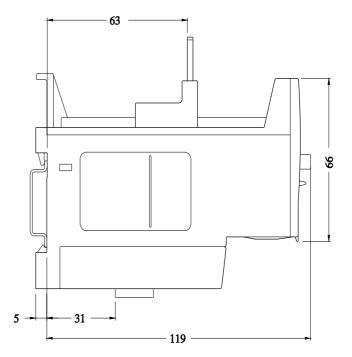
Characteristic: Tripping characteristics, I²t, Let-through current

https://support.industry.siemens.com/cs/ww/en/ps/3RB2143-4ED0/char

Further characteristics (e.g. electrical endurance, switching frequency)

http://www.automation.siemens.com/bilddb/index.aspx?view=Search&mlfb=3RB2143-4ED0&objecttype=14&gridview=view1





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